

WHAT IS CLAIMED IS:

1. An implantable medical device comprising a non-woven framework, wherein said non-woven framework comprises metal fibers and pores having an average size of at least 40 μm .
2. The implantable medical device of claim 1, wherein said pores have an average size of at least 60 μm .
3. The implantable medical device of claim 1, wherein said metal fibers are selected from the group consisting of stainless steel, tantalum, titanium, gold, and platinum.
4. The implantable medical device of claim 1, wherein said metal fibers are stainless steel.
5. The implantable medical device of claim 1, wherein said implantable medical device further comprises an extracellular matrix protein.
6. The implantable medical device of claim 5, wherein said extracellular matrix protein is fibronectin.
7. The implantable medical device of claim 5, wherein said non-woven framework further comprises cells selected from the group consisting of smooth muscle cells, fibroblasts, hepatocytes, and endothelial cells.
8. The implantable medical device of claim 7, wherein said cells express a polypeptide selected from the group consisting of vascular endothelial growth factor, natriuretic peptide, prostacyclin synthase, angiostatin, endostatin, erythropoietin, and a marker polypeptide.
9. The implantable medical device of claim 1, wherein said implantable medical device is a stent having an interior and an exterior surface.

10. The implantable medical device of claim 9, wherein said non-woven framework is attached to at least a portion of said exterior surface.
11. The implantable medical device of claim 9, wherein said stent is fabricated from said non-woven framework.
12. An implantable medical device comprising a plurality of surfaces, wherein at least a portion of at least one of said plurality of surfaces comprises a non-woven framework, and wherein said non-woven framework comprising pores having an average size of at least 40 μm .
13. The implantable medical device of claim 12, wherein said non-woven framework comprises metal fibers.
14. The implantable medical device of claim 12, wherein said non-woven framework comprises an inert polymer.
15. The implantable medical device of claim 14, wherein said inert polymer is polyethylene terephthalate or polytetrafluoroethylene.
16. The implantable medical device of claim 14, wherein said inert polymer is bioresorbable.
17. The implantable medical device of claim 16, wherein said inert polymer is polylactic acid, polyglycolic acid, or poly (N-acetyl-D-glucosamine).
18. The implantable medical device of claim 12 wherein said non-woven framework further comprises an extracellular matrix protein.
19. The implantable medical device of claim 18, wherein said extracellular matrix protein is fibronectin.

20. The implantable medical device of claim 19, wherein said non-woven framework further comprises cells selected from the group consisting of smooth muscle cells, fibroblasts, hepatocytes, and endothelial cells.
21. The implantable medical device of claim 20, wherein said cells express a polypeptide selected from the group consisting of vascular endothelial growth factor, natriuretic peptide, prostacyclin synthase, angiostatin, endostatin, erythropoietin, and a marker polypeptide.
22. The implantable medical device of claim 21, wherein said cells comprise a nucleic acid construct, said nucleic acid construct comprising a regulatory element operably linked to a nucleic acid encoding said polypeptide.
23. The implantable medical device of claim 22, wherein said regulatory element is inducible.
24. The implantable medical device of claim 13, wherein said metal fibers are selected from the group consisting of stainless steel, tantalum, titanium, gold, and platinum.
25. The implantable medical device of claim 13, wherein said metal fibers are stainless steel.
26. The implantable medical device of claim 12, wherein said non-woven framework comprises pores having an average size of at least 60 μM .
27. The implantable medical device of claim 12, wherein said implantable medical device is a stent.
28. The implantable medical device of claim 12, wherein said implantable medical device is a vascular graft.
29. The implantable medical device of claim 27, wherein said stent is balloon expandable or self-expanding.

30. The implantable medical device of claim 27, wherein said stent is composed of stainless steel, titanium, tantalum, platinum, platinum alloys, or a nickel-titanium alloy.
31. The implantable medical device of claim 13, wherein said non-woven framework is fused to at least a portion of at least one of said plurality of surfaces.
32. A non-woven framework comprising an extracellular matrix protein, wherein said non-woven framework comprises metal fibers and has an average pore size of at least 40 μm .
33. The non-woven framework of claim 32, wherein said extracellular matrix protein is fibronectin.
34. The non-woven framework of claim 33, wherein said non-woven framework further comprises cells selected from the group consisting of smooth muscle cells, fibroblasts, hepatocytes, and endothelial cells.
35. The non-woven framework of claim 34, wherein said cells express a polypeptide selected from the group consisting of vascular endothelial growth factor, natriuretic peptide, prostacyclin synthase, angiotatin, endostatin, erythropoietin, and a marker polypeptide.
36. The non-woven framework of claim 35, wherein said cells comprise a nucleic acid construct, wherein said nucleic acid construct comprises a regulatory element operably linked to a nucleic acid encoding said polypeptide.
37. The non-woven framework of claim 36, wherein said regulatory element is inducible.
38. A method of delivering a polypeptide to a mammal, said method comprising implanting a medical device in said mammal, wherein said medical device comprises a non-woven framework, said non-woven framework comprising metal fibers and pores having an average size of at least 40 μm , wherein said non-woven framework further comprises an extracellular matrix protein and cells selected from the group consisting of smooth

muscle cells, hepatocytes, fibroblasts, and endothelial cells, and wherein said cells express said polypeptide.

39. A method of delivering a polypeptide to a mammal, said method comprising implanting a medical device in said mammal, wherein said medical device comprises a plurality of surfaces, wherein a non-woven framework is attached to at least a portion of at least one of said plurality of surfaces, said non-woven framework having pores of an average size of at least 40 μm , wherein said non-woven framework further comprises an extracellular matrix protein and cells selected from the group consisting of smooth muscle cells, hepatocytes, fibroblasts, and endothelial cells, and wherein said cells express said polypeptide.